

FILE 'CAPLUS, MEDLINE, BIOSIS, CA, SCISEARCH, EMBASE' ENTERED AT 10:03:01
ON 09 JUL 2002

L1 763452 S MASS (W) SPECTR?
L2 1113913 S AFFINITY
L3 251542 S IMMUNOASSAY
L4 4998 S L1 AND L3
L5 679 S L1 (20W) L3
L6 271 DUPLICATE REM L5 (408 DUPLICATES REMOVED)
L7 2192530 S PLURAL? OR MULTIPL?
L8 32 S L6 AND L7
L9 2665004 S ANTIBOD?
L10 991 S L1 (15W) L9
L11 167 S L2 AND L10
L12 63 DUPLICATE REM L11 (104 DUPLICATES REMOVED)
L13 2493 S L1 (S) L3
L14 529073 S MOLECULAR (W) WEIGHT
L15 1992 S L1 (15W) L14
L16 14 S L3 AND L15
L17 7 DUPLICATE REM L16 (7 DUPLICATES REMOVED)
L18 2 S L17 AND L9

FILE 'CAPLUS, MEDLINE, BIOSIS, CA, SCISEARCH, EMBASE' ENTERED AT 08:30:06
ON 09 JUL 2002

L1 665899 S MASS (W) SPECTRO?
L2 529073 S MOLECULAR (W) WEIGHT
L3 12419 S L1 AND L2
L4 2970781 S ANTIBOD? OR IMMUNOGLOBULIN
L5 637 S L3 AND L4
L6 234004 S DESORPTION
L7 214 S L5 AND L6
L8 116 DUPLICATE REMOVE L7 (98 DUPLICATES REMOVED)
L9 403322 S IMMOBIL?
L10 14 S L8 AND L9

L Number	Hits	Search Text	DB	Time stamp
1	28169	mass adj spectro\$	USPAT; US-PGPUB	2002/07/09 09:16
2	64249	antibod\$3 or immunoglobulin	USPAT; US-PGPUB	2002/07/09 09:17
3	14487	desorption	USPAT; US-PGPUB	2002/07/09 09:17
4	6253	(mass adj spectro\$) and (antibod\$3 or immunoglobulin)	USPAT; US-PGPUB	2002/07/09 09:17
5	681	desorption and ((mass adj spectro\$) and (antibod\$3 or immunoglobulin))	USPAT; US-PGPUB	2002/07/09 09:18
6	52659	immobiliz\$	USPAT; US-PGPUB	2002/07/09 09:18
7	11685	(antibod\$3 or immunoglobulin) same immobiliz\$	USPAT; US-PGPUB	2002/07/09 09:18
8	1515	(mass adj spectro\$) and ((antibod\$3 or immunoglobulin) same immobiliz\$)	USPAT; US-PGPUB	2002/07/09 09:18
9	175	desorption and ((mass adj spectro\$) and ((antibod\$3 or immunoglobulin) same immobiliz\$))	USPAT; US-PGPUB	2002/07/09 09:20
10	4271	(435/7.1).CCLS.	USPAT; US-PGPUB	2002/07/09 09:20
11	622	(mass adj spectro\$) and ((435/7.1).CCLS.)	USPAT; US-PGPUB	2002/07/09 09:23
12	1015	1.ti.	USPAT; US-PGPUB	2002/07/09 09:24
13	31	(antibod\$3 or immunoglobulin) and 1.ti.	USPAT; US-PGPUB	2002/07/09 09:32
14	2890	(436/518).CCLS.	USPAT; US-PGPUB	2002/07/09 09:37
15	256	(mass adj spectro\$) and ((436/518).CCLS.)	USPAT; US-PGPUB	2002/07/09 09:37
16	211	(antibod\$3 or immunoglobulin) and ((mass adj spectro\$) and ((436/518).CCLS.))	USPAT; US-PGPUB	2002/07/09 09:37

ANSWER 3 OF 14 CAPLUS COPYRIGHT 2002 ACS

AN 1995:922454 CAPLUS

DN 123:309836

TI Probe-**Immobilized** Affinity Chromatography/**Mass Spectrometry**

AU Brockman, Adam H.; Orlando, Ron

CS Complex Carbohydrate Research Center, University of Georgia, Athens, GA,
30602-4712, USA

SO Anal. Chem. (1995), 67(24), 4581-5

CODEN: ANCHAM; ISSN: 0003-2700

DT Journal

LA English

L8 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2002 ACS

TI **Mass Spectrometric Immunoassay**

AB A new, general method of immunoassay is demonstrated. The approach is based on the microscale immunoaffinity capture of target antigens followed by mass-specific identification and quantitation using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. Immunoaffinity capture of antigens effectively overcomes signal suppression effects typically encountered during traditional matrix-assisted laser desorption/ionization anal. of complex biol. mixts. while simultaneously concg. the analyte into a small vol. Mass spectrometric detection of antigens is unambiguous, as antigen signals are obsd. at characteristic mass-to-charge values in the mass spectrum, offering a high level of immunity to artifacts due to nonbiospecific retention of mixt. components. However, the most important aspect of such mass-specific detection is the ability to use a single assay to screen biol. systems for the presence of **multiple**, mass-resolved antigens. Analyte quantitation is possible by using a single antibody to capture both the antigen and an antigen variant which has been chem. modified to have a distinct mass. With proper calibration, the relative signal intensities of the two species in the mass spectrum can be used to det. the antigen concn. Sample incubation and processing methods were such that a typical anal. could be performed in less than 1 h while subnanomolar sensitivities were maintained. The technique has been used for the rapid, selective, and quant. screening of human blood for the presence of myotoxin a, and Mojave toxin from the venoms of the prairie rattlesnake, *Crotalus viridis viridis*, and the Mojave rattlesnake, *Crotalus scutulatus scutulatus*.

SO Anal. Chem. (1995), 67(7), 1153-8

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AU Nelson, Randall W.; Krone, Jennifer R.; Bieber, Allan L.; Williams, Peter